CLAIMS:

1. (currently amended) A method of manufacturing comprising:

defining a cavity between an inner mold comprising a fugitive material portion and an outer mold;

casting a layer of ceramic insulating material within the cavity;

removing the outer mold;

performing a mechanical process on the layer of ceramic insulating material while the inner mold remains in place for mechanically supporting the layer of ceramic insulating material; and

removing the fugitive material and removing the inner mold;

wherein the step of performing a mechanical process comprises machining the layer of ceramic insulating material to a predetermined thickness.

2. (original) The method of claim 1, further comprising applying a layer of ceramic matrix composite material to the layer of ceramic insulating material prior to the step of removing the fugitive material and removing the inner mold.

3. (original) The method of claim 2, further comprising:

removing the inner mold after the step of applying a layer of ceramic matrix composite material; and

performing a mechanical process on an inside surface of the layer of ceramic insulating material.

4. (cancelled).

5. (original) The method of claim 1, wherein the cavity is defined to have a thickness dimension selected to facilitate the step of casting, and wherein the step of performing a mechanical process comprises machining an outer surface portion of the layer of ceramic insulating material to reduce a thickness dimension of the layer of ceramic insulating material to less than the thickness dimension of the cavity.

6. (original) The method of claim 1, wherein the inner mold defines a net shape desired for the layer of ceramic insulating material.

7. (original) The method of claim 1, further comprising at least partially curing the layer of ceramic insulating material prior to removing the inner mold.

8. (currently amended) ~~The method of claim 1, further comprising:~~A method of manufacturing comprising:

defining a cavity between an inner mold comprising a fugitive material portion and an outer mold;

casting a layer of ceramic insulating material within the cavity;

removing the outer mold;

performing a mechanical process on the layer of ceramic insulating material while the inner mold remains in place for mechanically supporting the layer of ceramic insulating material;

removing the fugitive material and removing the inner mold;

at least partially curing the layer of ceramic insulating material after the inner mold has been removed; and

installing a second inner mold comprising a fugitive material portion for supporting the ceramic insulating material during a subsequent process step.

9. (original) The method of claim 8, wherein the fugitive material portion of the inner mold used during the step of casting comprises a material different from the fugitive material portion of the second inner mold.

10. (original) The method of claim 8, further comprising applying a layer of ceramic matrix composite material to the layer of ceramic insulating material after the second inner mold is installed.

11. (original) A method of manufacturing a gas turbine component comprising a ceramic matrix composite material member defining a passageway and a layer of ceramic insulating material protecting the ceramic matrix composite member from high temperature gas passing through the passageway, the method comprising:

defining an annular cavity having a first thickness dimension between an inner mold and an outer mold;

casting ceramic insulating material within the cavity to have a first thickness dimension;

removing the outer mold;

removing a portion of the ceramic insulating material to reduce the ceramic insulating material to a second thickness dimension smaller than the first thickness dimension while the inner mold remains in place mechanically supporting the ceramic insulating material;

forming a layer of ceramic matrix composite material on an outer surface of the ceramic insulating material; and

removing the inner mold.

12. (original) The method of claim 11, further comprising:

forming the inner mold to have a fugitive material portion; and

transforming the fugitive material portion prior to the step of removing the inner mold.

13. (original) The method of claim 11, further comprising at least partially curing the ceramic insulating material while the inner mold remains in place prior to the step of removing a portion of the ceramic insulating material.

14. (original) The method of claim 11, further comprising:

performing the step of defining an annular cavity using a first inner mold;

removing the first inner mold after the step of casting;

at least partially curing the ceramic insulating material after the step of removing the first inner mold; and

installing a second inner mold for supporting the ceramic insulating material prior to the step of removing a portion of the ceramic insulating material.

15. (original) The method of claim 14, further comprising forming the second inner mold of a material different than a material of the first inner mold.

16. (original) The method of claim 11, further comprising performing a mechanical process on an inside surface of the ceramic insulating material after the step of removing the inner mold.

17. (original) The method of claim 11, further comprising forming the inner mold to have a net shape desired for the passageway.

18. (original) The method of claim 11, further comprising forming the first thickness dimension to be at least 15 mm and removing a sufficient portion of the ceramic insulating material to reduce the ceramic insulating material to a thickness of 3-8 mm while the inner mold remains in place.